

Steven C. Quay
Application No.: 09/587,116
Page 3

PATENT

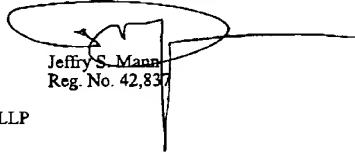
Johnson, 194 USPQ 187 (CCPA 1977). In *Johnson*, the Court held that it was legitimate for an Applicant to amend a claim to remove a disclosed species, thereby claiming less than the full scope of his disclosure, since it is up to the inventor to decide what scope of protection he will seek.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 415-576-0200.

Respectfully submitted,

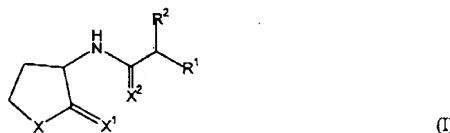


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SF 1294704 v1

VERSION WITH MARKINGS TO SHOW CHANGES MADE

1. (Amended) A compound having the structure:



2. wherein,

3. R^1 is a member selected from $-H$, $-OH$, and $(=O)$;

4. R^2 is a member selected from $[H]$, reactive functional groups, alkyl groups
5. terminally substituted with a reactive functional group and internally
6. substituted alkyl groups terminally substituted with a reactive functional
7. group;

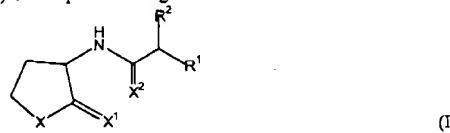
8. X is a member selected from $-O-$, $-S-$ and $-NH-$; and

9. X^1 and X^2 are members independently selected from O and S.

10. CLAIMS 28-108 HAVE BEEN CANCELED.

11. CLAIMS PENDING AFTER AMENDMENT

1. (Amended) A compound having the structure:



2. wherein,

3. R^1 is a member selected from $-H$, $-OH$, and $(=O)$;

4. R^2 is a member selected from reactive functional groups, alkyl groups
5. terminally substituted with a reactive functional group and internally
6.

Steven C. Quay
Application No.: 09/587,116
Page 5

7 substituted alkyl groups terminally substituted with a reactive functional
8 group;

9 X is a member selected from —O—, —S— and —NH—; and
10 X¹ and X² are members independently selected from O and S.

1 2. The compound according to claim 1, wherein R² is an internally

2 substituted alkyl group terminally substituted with a reactive functional group.

1 3. The compound according to claim 2, wherein the alkyl group is

2 internally substituted with a functional group that is a member selected from —OH, (-O) and
3 combinations thereof.

1 4. The compound according to claim 1, wherein the reactive functional

2 group is a member selected from —OR³, —NHR⁴, —COR⁵, —SH and
3 —CH₂X³

4 wherein,

5 —OR³ is a member selected from hydroxy, alkyl sulfonate and aryl sulfonate
6 groups;

7 R⁴ is a member selected from H, C₁-C₆ alkyl, C₁-C₆ substituted alkyl, aryl and
8 substituted aryl groups;

9 R⁵ is a member selected from H, X³ and —OR⁶, wherein R⁶ a member
10 selected from alkyl, substituted alkyl, aryl, substituted aryl, heteroaryl,
11 substituted heteroaryl, heterocyclyl and substituted heterocyclyl groups;
12 and

13 X³ is a halogen.

1 5. The compound according to claim 1, wherein the compound is a single

2 stereoisomer.

1 6. The compound according to claim 4, wherein R³ is

Steven C. Quay
Application No.: 09/587,116
Page 6

PATENT

2 wherein,

4 R⁸ is a member selected from alkyl, substituted alkyl, aryl and substituted aryl
5 groups.

1 7. The compound according to claim 1, wherein the alkyl and the
2 internally substituted alkyl groups are members selected from C₁-C₂₀ saturated straight-chain,
3 C₁-C₂₀ saturated branched-chain, C₁-C₂₀ unsaturated straight-chain, C₁-C₂₀ unsaturated
4 branched-chain alkyl and internally substituted alkyl groups.

1 8. The compound according to claim 7, wherein the alkyl and internally
2 substituted alkyl groups are members selected from C₅-C₁₀ saturated straight-chain, C₅-C₁₀
3 saturated branched-chain, C₅-C₁₀ unsaturated straight-chain, C₅-C₁₀ unsaturated branched-
4 chain alkyl and internally substituted alkyl groups.

1 9. A compound according to claim 1, wherein R² has the structure:

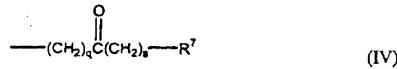


2 wherein,

4 R⁷ a reactive functional group; and
5 n is a number from 1 to 20, inclusive.

1 10. The compound according to claim 9, wherein n is a number from 2 to
2 9, inclusive.

1 11. A compound according to claim 1, wherein R² has the structure:



2 wherein,

4 R⁷ is a reactive functional group; and
5 q and s are numbers independently selected from 1 to 20, inclusive.

PATENT

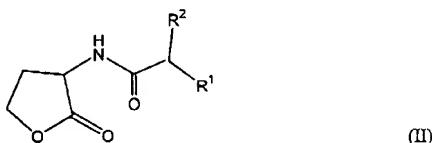
Steven C. Quay
Application No.: 09/587,116
Page 7

1 12. The compound according to claim 11, wherein s is a number from 2 to
2 9, inclusive.

1 13. A pharmaceutical formulation comprising a pharmaceutically
2 acceptable carrier and a compound according to claim 1, said reactive functional group of
3 said compound being covalently bound to a biologically active agent.

1 14. The pharmaceutical formulation according to claim 13, wherein said
2 biologically active agent is a member selected from antibiotics, immune stimulators and
3 combinations thereof.

1 15. A compound having the structure:



2 wherein,
3 R¹ is a member selected from H, OH, and (=O); and
4 R² is a member selected from H, reactive functional groups, alkyl groups
5 terminally substituted with a reactive functional group and internally
6 substituted alkyl groups terminally substituted with a reactive functional
7 group, with the proviso that when R² is —OH, R¹ is a member selected
8 from OH, and (=O).

1 16. The compound according to claim 15, wherein the reactive functional
2 group is a member selected from —OR³, —NHR⁴, —COR⁵, SH and CH₂X³

3 wherein,
4 —OR³ is a member selected from hydroxy, and a species such that —OR³ is a
5 leaving group;
6 R⁴ is a member selected from H, C₁-C₆ alkyl, C₁-C₆ substituted alkyl, aryl and
7 substituted aryl groups;

Steven C. Quay
Application No.: 09/587,116
Page 8

PATENT

8 R⁵ is a member selected from H, halogen and —OR⁶, wherein R⁶ is specific
9 such that —OR⁶ is a leaving group; and
10 X³ is a halogen.

17. The compound according to claim 16, wherein R³ is



3 wherein,
4 R⁸ is a member selected from alkyl, substituted alkyl, aryl and substituted ary
5 groups.

1 18. The compound according to claim 16, wherein R⁶ is a member
2 selected from alkyl, substituted alkyl, aryl, substituted aryl, heteroaryl, substituted heteroaryl
3 heterocycl and substituted heterocycl groups.

1 19. The compound according to claim 15, wherein the alkyl and the
2 internally substituted alkyl groups are members selected from C₁-C₂₀ saturated straight-chain
3 C₁-C₂₀ saturated branched-chain, C₁-C₂₀ unsaturated straight-chain, C₁-C₂₀ unsaturated
4 branched-chain alkyl and internally substituted alkyl groups.

20. The compound according to claim 19, wherein the alkyl and internally substituted alkyl groups are members selected from C₅-C₁₀ saturated straight-chain, C₅-C₁₀ saturated branched-chain, C₅-C₁₀ unsaturated straight-chain, C₅-C₁₀ unsaturated branched-chain alkyl and internally substituted alkyl groups.

1 21. A compound according to claim 15, wherein R² has the structure



3 wherein,
4 R⁷ is a reactive functional group; and
5 n is a number from 1 to 20, inclusive.

Steven C. Quay
Application No.: 09/587,116
Page 9

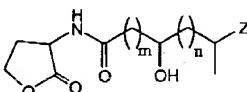
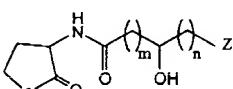
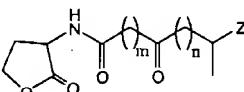
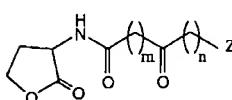
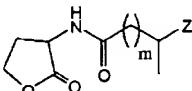
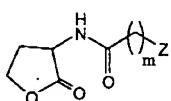
PATENT

1 22. The compound according to claim 21, wherein n is a number from 2 to
2 9, inclusive.

1 23. The compound according to claim 15, wherein R² is a member
2 selected from the group consisting of —COOH, —OH, —NH₂, and —SH.

1 24. The compound according to claim 21, wherein R⁷ is a member selected
2 from the group consisting of —COOH, —OH, —NH₂, and —SH.

1 25. A compound having a structure that is a member selected from:



2 wherein,

3 m is a number selected from 1 to 20, inclusive;

4 n is a number from 0 to 20, inclusive; and

5 Z is a reactive functional group.

1 26. The compound according to claim 25, wherein m and n are numbers
2 independently selected from 2 to 9, inclusive.

1 27. The compound according to claim 25, wherein Z is a member selected
2 from —NH₂, —COOH, —SH, and —OH.

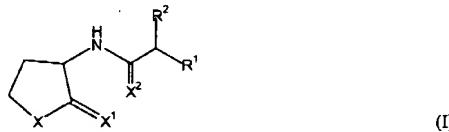
SF 1294704 v1

Steven C. Quay
Application No.: 09/587,116
Page 4

PATENT

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4 R² is a member selected from [H], reactive functional groups, alkyl groups
5 terminally substituted with a reactive functional group and internally
6 substituted alkyl groups terminally substituted with a reactive functional
7 group;

8 X is a member selected from —O—, —S— and —NH—; and

9 X¹ and X² are members independently selected from O and S.

10

1 CLAIMS 28-108 HAVE BEEN CANCELED.